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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
09/397,034	09/16/99	ATAKE H	DAIN:435A

EXAMINER	
JACKSON, M	
ART UNIT	PAPER NUMBER
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Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

Office Action Summary	Application No.	Applicant(s)	
	09/397,034	ATAKE, HIROYUKI	
	Examiner	Art Unit	
	Monique R Jackson	1773	

-- The MAILING DATE of this communication appears on the cov r sheet with th correspondenc address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *06 August 2001* .

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *13-22* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *13-22* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☒ Certified copies of the priority documents have been received in Application No. *08/957,068* .

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other:

DETAILED ACTION

1. The amendment filed 8/6/01 has been entered. New claims 21-22 have been added. Claims 13-22 are pending in the application.

2. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claim Rejections - 35 USC § 103

3. Claims 13-22 are rejected under 35 U.S.C. 103 (a) as being unpatentable over Takada et al. Takada et al teach a molding coated with a decorative sheet comprising an acrylic resin protective layer wherein the acrylic resin is a modified copolymer containing a backbone and at least one side chain linked to the backbone, the backbone having a glass transition temperature of preferably about 45°C to about 80°C (Col. 4, lines 30-39), and a backing resin sheet between the molding and the acrylic sheet (Figures 2A-2C, Figure 6, and Claim 1.) The acrylic copolymer may be formed from monomers including methyl (meth)acrylate, butyl (meth)acrylate, ethyl (meth)acrylate or other (meth)acrylic esters (Col. 5, lines 8-12.) Takada et al specifically teach an example comprising a methyl methacrylate-butyl methacrylate copolymer (Examples.) Takada et al further teach that the outer layer acrylic composition may comprise a number of additives including a color pigment, slip agent, and a wetting agent. Though Takada et al do not specifically teach the amount of these conventional additives including the slip agent (or lubricant) as instantly claimed, it is well known in the art that the amount of these additives is a result-effective variable wherein in the case of slip agents or lubricants, the amount of the additive affects the slip properties or lubricity of the resulting film, as conventionally measured by the coefficient of friction. Hence, it would have been obvious to one skilled in the art at the

time of the invention to utilize routine experimentation to determine the optimum amount of conventional additives such as slip agents or lubricants to provide in the outer acrylic layer to provide the desired slip properties or coefficient of kinetic friction of the resulting acrylic layer based on the desired end use of the molded article.

4. Claims 13-22 are rejected under 35 U.S.C. 103 (a) as being unpatentable over Takada et al as evidenced by Culbertson et al (USPN 5,096,784), Chu et al '758 (USPN 4,981,758), Chu et al '241 (USPN 4,956,241), Steklenski (USPN 4,404,276), Murata et al (USPN 5,424,135), Nakata et al (USPN 5,744,211), or Krenceski et al (USPN 5,268,215). The teachings of Takada et al are discussed above. Though Takada et al teach that conventional additives can be incorporated into the acrylic top layer of the decorative film, Takada et al do not specifically teach that the amount is sufficient to provide a coefficient of kinetic friction with a glass plate of 0.2 to 0.9. However, it is well known in the art that the amount of these conventional additives is a result-effective variable wherein in the case of slip agents or lubricants, the amount of the additive affects the slip properties or lubricity of the resulting film, as conventionally measured by the coefficient of friction and hence, it would have been obvious to one skilled in the art at the time of the invention to utilize routine experimentation to determine the optimum amount of conventional additives such as slip agents or lubricants to provide in the outer acrylic layer to provide the desired slip properties or coefficient of kinetic friction of the resulting acrylic layer based on the desired end use of the molded article. In terms of a coefficient of kinetic friction in the range of 0.2 to 0.9, it is known in the art that the composition of an acrylic coating layer comprising a slip or lubricating agent can be modified to provide a coefficient of kinetic friction within the instantly claimed range based on the desired end use of the coated article. For

example, Culbertson et al teach an acrylic coated polyester film wherein the acrylic coating layer comprising a lubricating agent is modified such that the coefficient of friction for the film is desirably 0.3 to 0.7 indicating good slip or handleability for particular end uses (Abstract; Col. 42-52.) Chu et al '758 teach thermoplastic films coated with acrylic polymer characterized by having a relatively low coefficient of friction wherein the acrylic coating composition comprises an acrylic copolymer having a glass transition temperature of about 30°C to about 100°C, a slip agent and optionally a water dispersible wax, wherein the composition can be modified to modify the coefficient of friction of the coated film with examples and comparative examples having a coefficient of friction ranging from 0.13 to 0.50 (Abstract; Col. 2, lines 31-68; Examples.) Chu et al '241 teach slip coated thermoplastic films wherein the slip coating is essentially an aqueous wax and further comprises an acrylic polymer emulsion having a glass transition temperature between 30° and 100°C and a minor amount of a talc or synthetic amorphous silica gel to provide excellent non-blocking and slip properties including low coefficient of friction with inventive examples having a coefficient of friction of 0.19 to 0.33 (Abstract; Examples.) Steklenski teaches a polymer composition having a low coefficient of friction comprising an acrylic polymer having a glass transition temperature of at least 50°C and a crosslinked silicon polycarbinol in an amount to provide the desired slip properties or coefficient of friction to provide a protective overcoat layer having abrasion resistance and resistance to static charging (Abstract; Col. 4:36-42.) Further, it is well known in the art that slip or lubricating agents can be utilized to control the coefficient of kinetic friction with regards to glass of the surface of a molded article wherein the molded article is utilized adjacent to glass such as a molded glass run channel as taught by Murata et al which teaches incorporating a

lubricant into a polymer resin to improve sliding properties or reduce the slide friction between the molded article and the window glass (Col. 2, lines 54-55; Col. 15, lines 30-55; and Col. 20, lines 1-3) or Nakata et al which teaches a molded article incorporating a lubricant in an amount to provide desired sliding properties of the molded article with respect to glass (Abstract; Col. 1.) Additionally with regards to an in-mold decorative film as instantly claimed, Krenceski et al teach that a decorative film having a basecoat-clearcoat appearance useful for bonding to three-dimensional substrates such as automobile panels by vacuum thermoforming or in-mold thermoforming, wherein the topcoat layer includes an amount of reactive poly(dialkylsiloxane) (a conventional slip or lubricating agent) to maintain a low coefficient of friction of the topcoat with examples having a coefficient of friction ranging from 0.11 to 0.43. Hence, the Examiner maintains her position that it would have been obvious to one skilled in the art at the time of the invention to utilize routine experimentation to optimize the amount of conventional additives such as slip agents or lubricants to include in the outer acrylic layer taught by Takada et al to provide the desired slip properties or coefficient of kinetic friction of the resulting acrylic layer based on the desired end use of the coated, molded article as evidenced by Culbertson et al, Chu et al '758, Chu et al '241, Steklenski, Murata et al, Nakata et al, or Krenceski et al.

Response to Arguments

5. Applicant's arguments filed 8/6/01 have been fully considered but they are not persuasive. The Applicant argues that the instantly claimed invention provides unexpected results with regards to incorporating an amount of lubricant to provide a coefficient of kinetic friction with glass of 0.2 to 0.9, namely high abrasion resistance and no creasing, strain or dislocation from stress during injection molding. However, the Examiner takes the position that

these results are not unexpected given that it is well known in the art that abrasion resistance and machinability are directly affected by the slip or sliding properties of the film or article. The Examiner's position if supported by the various references cited above as well as by Albrinck et (USPN 5,456,949) which is directed to a method of producing a damage resistant decorative laminate having improved scratch, mar, scrape and abrasion resistance, wherein Albrinck et al specifically teach that a reduction in surface friction affects the abrasion resistance of the decorative laminate given that a reduction in surface friction allows abrasive articles to more easily slide over the surface of the decorative laminate hence improving abrasion resistance of the decorative laminate and also teach incorporating a lubricating agent in a concentration sufficient to impart scrape resistance and further reduce abrasive friction of the decorative laminate (Col. 3-Col. 5, line 19; Col. 6, lines 26-27.) Hence, the Examiner maintains her position that it would have been obvious to one skilled in the art at the time of the invention to utilize routine experimentation to optimize the amount of slip or lubricating agent to provide in the acrylic surface layer of the decorative film taught by Takada et al based on the required slip or friction properties for a desired end use.

6. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period

will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Monique R Jackson whose telephone number is 703-308-0428. The examiner can normally be reached on Mondays-Thursdays, 8:00AM-4:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Paul J Thibodeau can be reached on 703-308-2367. The fax phone numbers for the organization where this application or proceeding is assigned are 703-305-5436 for regular communications and 703-305-3599 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0661.

mrj
October 18, 2001

Paul Thibodeau
Supervisory Patent Examiner
Technology Center 1700